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Japan's Labor Unions*

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Abstract

The various labor laws enacted in Japan in the Occupation era, and still in effect today without substantial amendment, legitimized unions, both as bargaining units on behalf of the employees of large companies and as political organizations, but prohibited strikes by public employees, and did not lead to the establishment of valuable labor monopolies. The effective bargaining units in wage negotiations in Japan are mostly enterprise unions, whose respective members are employees of a given company. This does not preclude their having succeeded in raising members' wages. Japan's infrequency and short duration of strikes is a poor indication of the effectiveness of its labor unions at obtaining higher wages for their members. The smallness of losses due to strikes in Japan means only that there is little discrepancy between the unions' and employers' information regarding the employers' maximum willingness to pay a premium for union members' services. It does not necessarily mean that the premium itself is small. Enterprise union members in Japan mostly include the regular employees of large firms, trained in company-specific skills and expectant of long ultimate tenures of service. Compared to members of a typical industry-wide union in the U.S. or elsewhere, the members of a Japanese enterprise union are relatively homogeneous and have had a longer time in which to observe the behavior of their employer. For both these reasons, it is quite natural to suppose that union members in Japan should be relatively well-informed regarding their employers' willingness to pay a premium for their services.

*Much of this paper is culled from: David Flath, Japanese Economy, Oxford University Press, forthcoming.

Japan's Labor Unions

Japanese labor relations exhibit two distinctive characteristics, possibly related to one another. The first one is that the typical Japanese labor union collects the employees of a single firm, not employees of different firms in the same industry or workers of similar crafts employed in different industries. That is, most Japanese labor unions are enterprise unions, not industry-wide unions or craft unions. The second distinctive feature is that the percent of total working time lost due to strikes is far less in Japan than in most other nations. The key questions about Japan's labor unions center on the underlying reasons for the two distinctive aspects just mentioned, and on whether the distinctive features necessarily mean that the Japanese unions are ineffective at protecting workers' interests. A further issue is the precise interrelation between enterprise unions and Japan's other employment practices, for union members in Japan are mostly the permanent employees of the large firms, exactly the same workers most subject to lifetime employment and seniority-based wages.

The history of Japan's labor union movement before 1945 was not a happy one. In the absence of effective legal protection, unions enjoyed little success. The prewar unionization rate peaked in 1931, when only eight percent of Japan's industrial workers belonged to unions, and these were relatively concentrated in smaller firms. The military-dominated governments of the 1930's regarded the labor movement as political anathema and imprisoned many of the union leaders. Japan's ruling government banned labor unions altogether in 1940, the same year it abolished political parties, and the ban remained in effect at the war's end.

The office of SCAP, under instruction from Washington, took early steps to encourage labor unions. The aim of the Americans was partly political. Labor unions with elected leaders afford an outlet for free political expression, even where the official organs of government are not democratic. But labor unions, of course, serve an economic purpose as well as a political one. The economic purpose of unions is to extract higher wages for members, by first either effecting contrived scarcities of labor services, or providing valued services, and then bargaining successfully for a share in the resulting economic rent. The valuable services that unions can provide include collective negotiation of employment contracts, monitoring of employers' compliance with such contracts, and identification of skilled and disciplined workers. Whether unions monopolize labor or provide valuable services, their insistence on higher wages for members will achieve little unless it is buttressed by the credible threat to impose losses on a recalcitrant employer by striking. The Japanese labor laws that were enacted in the Occupation era and remain in effect today without substantial amendment, did establish the legitimacy of strikes.

Labor Legislation

In every country where unions have succeeded economically, unions' right to strike is legally protected. In Japan, Article 17 of the Police Regulations enacted in 1900, did exactly the opposite, explicitly outlawing coercive acts connected with strikes and barring union organizing activities. As interpreted by the courts and law enforcement officials, this amounted to a blanket prohibition of strikes. But strikes did occur anyway. In spite of Article 17, in the first two decades of this century, Japanese labor unions did organize selected industries including the merchant marine, railroad

operation, printing, and coal mining. These same industries were among the earliest to be unionized in America and Europe. They are all industries in which strikes are particularly costly to employers, either because workers represent a unique resource (those who reside near a mine) or exhibit unique skills and are therefore not easily replaced (printers, locomotive engineers), or industries in which employers are dependent on unions to identify productive workers (a ship's operators are often a motley crew).

In the World War I economic boom, Japanese labor unions gained economic strength from the expanded demand for industrial labor. Strike activity also increased even though it frequently meant incarceration of union leaders. The growing economic strength of unions led to political concessions. In July 1926, the Diet repealed Article 17 and enacted a new law providing for police conciliation of labor disputes. This statute was a step towards legitimizing unions, but interfered little with union busting dismissals by employers. Under this regime, Japanese labor unions mainly succeeded in organizing some of the workers in small firms. Union membership as a percentage of the industrial workforce peaked in 1931 at a mere eight percent. The *minseitō* administration of Hamaguchi, in 1929 and 1931, proposed additional labor legislation that would have gone farther to protect unions' right to strike, and to organize the employees of large firms, but failed to enact it.¹ The subsequent Japanese administrations regarded the socialistic political agenda of the leading unions as anathema, and imprisoned many of the leaders. In November 1940, the second Konoe administration abolished independent labor unions altogether, and, at the same stroke, itself organized all industrial workers into company-by-company political cells called *sangyō hōkokukai* (or *sanpō* for short; lit. "industrial patriotic associations"). These cells, as intended, completely preempted the formation of autonomous labor unions, suppressing labor disputes in order to advance the war effort. The *sanpō* associations of Japan were explicitly modeled on the German Nazi government's labor associations known as the National Labor Front. At the war's end, no effective independent labor unions existed in Japan. Ending this state of affairs became an early priority of SCAP.

Under the broad guidance of SCAP, Japan's Diet enacted three basic laws pertaining to labor unions and industrial relations. The Labor Union Law, enacted December 1945, officially recognizes labor unions with elected leaders as the collective bargaining agents of their voluntary members, and explicitly recognizes a right-to-strike. For example, it disallows employers from collecting indemnities from unionized workers to compensate for the employer's own losses due to strikes. The law also disallows employers from discriminating against workers who participate in unions. It *is po facto* extends the terms of union agreements to other employees of the same factory if three-fourths of the employees are members of the particular union. Finally, it provides for national and prefectural labor relations commissions, staffed by appointees of the government, to conciliate, mediate and arbitrate labor disputes, including those arising from employee complaints of unfair practices such as employer discrimination against union members.

The Labor Relations Adjustment Law, enacted September 1946, details the procedures for the labor relations commissions to follow in conciliating, mediating and arbitrating labor disputes, of

¹Japanese labor unions and their supporters both in the government bureaucracy and in the political parties including the *kenseikai-minseitō*, struggled unsuccessfully throughout the prewar era to legitimize union strike activity. These events are described in detail by: Sheldon Garon, The State and Labor in Modern Japan, University of California Press, 1987.

which there had been quite a large number in the months since the Labor Union Law took effect. Under the terms of this statute, conciliation entails the participation in negotiations of a presumably impartial, but expert, third party, chosen from a panel appointed by the relevant labor relations commission. Also under the terms of the Labor Relations Adjustment Law, mediation is the proposal of resolution of a labor dispute by an appointed panel, some members of which represent employers and some who represent workers. The recommendations of a mediation committee are non-binding. The disputing parties themselves, may, in the end, choose to disregard them. Finally, arbitration entails the referral of a labor dispute to a three-person committee designated by the relevant labor relations commission and agreed upon by both disputants, and which, after consideration of the matter, issues a binding recommendation. Besides these stipulations, the Labor Relations Adjustment Law also prohibited strikes by policemen, firemen, government bureaucrats and the like. In July 1948, this was broadened (by ordinance 201) to prohibit strikes by all public employees including the workers in government enterprises, the largest of which was the national railroad. These strike prohibitions were subsequently made permanent by amendments of the National Public Service Law (December 1950) and Public Corporations Labor Relations Law (July 1952).

The last of the three basic labor laws of the Occupation era, the Labor Standards Law, enacted April 1947, stipulates terms of employment including 25% added wages for overtime work (initially, that in excess of eight hours in a day, six days in a week). It establishes a mechanism for imposing legal minimum wage stipulations. It prohibits child labor. It provides for thirty day notice of dismissal. It provides for employer compensation for on-the-job accidents, and requires that minimal standards of workplace safety and sanitation be observed.

Besides the three laws just described, the new Constitution, promulgated in November 1946, includes a stipulation (Article 28) guaranteeing "the right of workers to organize and to bargain and to act collectively". Whether this stipulation carries any force is unclear. For instance, the prohibitions against strikes by government employees have been upheld by the courts in Japan, Article 28 notwithstanding.

Unionization of workers in Japan proceeded quite rapidly immediately following the December 1945 implementation of the Labor Union Law. By year's end 1949, 55.8% of the nation's non-farm labor force belonged to unions, of which there existed 34,688 in Japan. By 1955, the unionized fraction of the industrial workforce had declined to around one-third, where it remained until the mid-1970's. Since then, unionization has steadily decreased in Japan. Currently, about one-fourth of Japan's industrial workforce are union members. Most of the unions formed from 1946-1949 simply organized the employees of a single company or business establishment. They could therefore be described, for the most part, as enterprise unions, and not industrial unions or craft unions. Many of these unions joined together in national confederations, but more did not. In the early postwar years, two national confederations of labor unions, in particular, vied with one another for national prominence. The one known as *sanbetsu* (shorthand for *zen nihon sangyōbetsu rōdō kumiai kaigi*, lit. "Japan-wide congress of industrial unions") was closely allied with the Communist Party, while its main rival, originally known as *sōdōmei* (short for *nihon rōdō kumiai sōdōmei*, lit. "confederation of Japanese labor unions") was allied with the Democratic Socialist Party (not to be confused with the larger, Japan Socialist Party). The purposes of *sanbetsu* and *sōdōmei* were to advance national political agendas, not to organize workers into broader collective bargaining units than one enterprise.

The high water mark of the national confederations of labor unions came when *sanbetsu*

called for a general strike to occur on February 1, 1947, and was joined by its main rival *sōdōmei* and by a number of large, unaffiliated, public employees' unions. In all, labor leaders claiming to represent about two-thirds of Japan's nonfarm labor force, joined the call for a general strike. Their demands included not only wage hikes for public employees, but the resignation of the Yoshida cabinet. The situation became especially tense when, two weeks before the strike date, the president of *sanbetsu* was mortally wounded in an attempted assassination. The strike never occurred. At the very last moment MacArthur issued a directive prohibiting it, and the vast majority of workers complied with the directive. Afterwards, *sanbetsu* shrank to insignificance. *Sōdōmei*, too, suffered diminished ranks and in 1954 merged with several other national labor organizations to form *dōmei* (short for *zen-nihon rōdō kumiai sōdōmei*, lit. "Japan-wide confederation of labor unions"). *Dōmei* was for a long time the second largest national labor organization in Japan. The largest was *sōhyō*, (short for *nihon rōdō kumiai sōhyōgikai*, lit. "general council of Japanese labor unions"), formed in March 1950, its ranks greatly swelled in reaction to the so-called "red purge" of June 1950 that it opposed, in which thousands of persons identified as Communists were barred from private employment. Communists had been purged from the civil service the previous year. In 1987, *dōmei* merged with another labor federation to form a new organization known as *rengō*, which in 1989 also absorbed *sōhyō*. The full name of *rengō* is now: *nihon rōdō kumiai sō-rengō kai* (lit. "general alliance of Japanese labor unions").

The rationale and essential activities of the national confederations have always been political, and they have not been very effective. *Sōhyō*, and since 1987 *rengō*, have been the main supporters of the Japan Socialist Party, for many years the leading opposition party in Japan. The Japan Socialist Party has only formed two cabinets in the entire postwar period, the Katayama Tetsu cabinet of 1947, and the coalition cabinet led by Murayama Tomiichi, 1994-95. The real political battles in contemporary Japan have mainly occurred within the ranks of the Liberal Democratic Party (LDP), which despite its name is rather conservative, not very sympathetic to labor unions. The LDP was formed in 1955 by the merger of the Liberal Party led by Yoshida with the Democratic Party, the leading conservative opposition party, led by Hatoyama Ichirō, successor to Yoshida as Prime Minister, 1954-56. The LDP prevailed in every general election from the time of its formation until 1993, when the party fragmented over the issue of money scandals. In other words, the leftist political parties supported by organized labor in Japan have been largely shut out of the government.

Nature and Extent of Unionization in Japan

Japanese labor unions have evolved within the framework of the laws described in the preceding section, and they are, overwhelmingly, enterprise unions. They organize the employees of a single company, or of merely one plant within a company. As Table 1 shows, more than 90 percent of union members in Japan belong to enterprise unions. These are not mere "locals" of larger unions. They enjoy (or "endure", depending on how one views it) complete autonomy in bargaining. As discussed in the preceding section, Japan's national confederations of labor unions (of which currently the largest by far is the one known as *rengō* (lit. "the alliance")), have mainly concerned themselves with national politics, not with collective bargaining or strike activity. The national confederations are not therefore proper analogues of the industry-wide unions of other nations, such as America's United Auto Workers' Union, United Mineworkers' Union, or Steelworkers' Union.

The only large industry-wide union in Japan is the Seamen's Union. The unions of public workers also exhibit some aspects of industry-wide unions, but are classified as enterprise unions. These include the Japan Railway Workers' Union, Telecommunication Workers' Union, Postal Workers' Union, Teachers' Union, and Municipal Workers' Union. There are no large craft unions in Japan. The few union members identified in the table as belonging to "other" types of unions are, for the most part, casual day-laborers registered at government unemployment insurance offices, and who belong to the Day-Workers's Union, a large union that does not fit easily into the other categories.

Table 1. Composition of Union Membership in Japan by Type of Union, 1930-1988.

	1930	1947	1964	1975	1988	1995
Percent of all union members belonging to each type:						
Enterprise Unions	36	82	91	91	91	
Industrial Unions	46	6	5	5	4	
Craft Unions	7	10	1	1	3	
Other	10	2	3	2	2	
All unions	100	100	100	100	100	
millions of persons	.35	6.27	9.65	12.47	12.16	12.61
pct of labor force	1.2%	18.0%	20.5%	23.4%	19.7%	18.9%

Sources. Ministry of Labor, *Trade Unions Basic Survey*; and David E. Weinstein, "United We Stand: Firms and Enterprise Unions in Japan", *Journal of Japanese and International Economies*, vol. 8, 1994, Table 1, p. 55 (Weinstein's primary sources: *Rodō kumiai kihon chōsa 30 nen shi* (30 year history of the trade unions basic survey); and *Nihon no rodō kumiai no genjō* (State of labor unions in Japan)).

The bottom row of Table 1 indicates some of the movements in the overall unionization rate of Japan. The great expansion in unionization after enactment of the labor laws is evident, as is the more recent secular decline in unionization. As Table 2 illustrates, unionization rates of other developed nations, and not only Japan, declined in the last decade. Perhaps the slowing of macroeconomic growth since the mid-1970's has stiffened management resistance to union organizing efforts. In support of such a conjecture, the decline in unionization in Japan since 1975, largely mirrors a drop in the rate at which unions have organized the workers in new establishments. It is not simply the result of a shifting pattern of employment across industries, towards the less unionized sectors.²

²The conjecture and its supporting evidence are both based on the following study: Richard B. Freeman and Marcus E. Rebick, "Crumbling Pillar? Declining Union Density in Japan", *Journal of Japanese and International Economies*, 3, 1989, pp. 578-605.

Table 2. Union Membership in Japan and Other Nations, 1970-1990.

	Union membership			Coverage
	(percent of wage and salary earners)			(percent of workers covered by union contracts)
	1970	1980	1990	
France	22	18	10	92 (1985)
US	23	22	16	18 (1990)
JAPAN	35	31	25	23 (1985)
Germany	33	45	33	90 (1985)
Canada	31	36	36	38 (1990)
Italy	36	49	39	not available
UK	45	50	39	47 (1990)

Source: OECD, *Employment Outlook* (1994), Table 5.7, p.184, and Table 5.8, p. 185.

Currently, Japan's overall unionization rate lies in the mid-range for developed nations. Japan's percentage of industrial workers belonging to unions is more than that of the U.S. but less than that of some European countries. But the last column of Table 2 reveals a way in which Japan is distinctive. In some nations, Germany and France in particular, many workers who are not union members are nevertheless covered by labor contracts negotiated by unions. In Japan, however, matters are actually reversed; fewer workers are covered by union contracts than are union members. In Germany, union organizing activity is afforded only weak legal protection but industry-wide negotiation of labor contracts is enshrined in law and amounts to monopsonistic cartelization of employers in the respective industries. In France, *de jure* extension of selected terms of union labor contracts to non-union employees in the same firms, industries, or regions is pervasive even though unionization itself is quite low. Extension mechanisms like those of Germany or France actually discourage union membership. Why pay union dues if one obtains no special benefits from membership? As already mentioned, the Labor Union Law of Japan *ipso facto* extends the terms of union agreements to other employees of the same factory if three-fourths of the employees are members of the particular union. The analogous stipulation of the relevant U.S. statute (the Wagner Act), requires that a simple majority of workers in the same "bargaining unit" vote by secret ballot in favor of exclusive representation by one union.³ The extension of the terms of union labor contracts to non-members is thus significantly weaker in Japan than in the U.S.. Almost all of Japan's incumbent enterprise unions organize far more than the three-fourths needed for extension of coverage to other employees of their same unit, which is often an establishment only, not an entire

³In the U.S., a "bargaining unit" is a set of workers designated by the government commission known as the National Labor Relations Board, to be a domain for union representation elections and collective bargaining.

firm. In spite of that, the three-fourths rule, compared to America's one-half rule, may well have impeded efforts to organize any new union not favored by management. This difference between American and Japanese labor law may account for the fact that industry-wide unions, although opposed by employers, could still form in the U.S., but only enterprise unions could form in Japan; employer resistance to industry-wide unions was more effective in Japan.⁴ This rather begs the question as to why these legal stipulations were allowed to persist in the respective nations. An appealing conjecture is that Japan's labor laws and its tendency to form enterprise unions are both subject to the same economic forces, the prevalence of company-specific skills at large firms.

Japan's unions tend to organize the employees of large firms, not small ones. Thus, industries with large firms like mining, public utilities, and heavy manufacturing industries are the most unionized in Japan, and wholesaling, retailing, agriculture and the construction industry are the least unionized. The Table 3 illustrates the profound difference in unionization across firms of differing sizes in Japan. Quite apparently, the typical union member in Japan is the permanent employee of a large manufacturing firm. And few such employees are not members of an enterprise union. These are exactly the same workers most subject to lifetime employment and seniority-based wages. This fact underlies explanations for Japan's tendency to form enterprise unions rather than industry-wide unions or craft unions.

⁴William B. Gould IV, Japan's Reshaping of American Labor Law, The MIT Press, 1984. See in particular the discussion on pp.37-38. Also see: Richard B. Freeman and Marcus E. Rebick, "Crumbling Pillar? Declining Union Density in Japan", Journal of Japanese and International Economies, 3, 1989, pp. 578-605, especially pp. 589-592.

Table 3. Unionization in Japan by Firm Size and Industry, 1991.

	Number of union members in thousands (and union members as a percentage of all employees)			
	Employees per firm			
	Total	300 or more	30-299	less than 30
Agriculture, Forestry and Fishery	51(19.7)	4(44.4)	1(0.1)	16(10.3)
Mining	17(21.8)	13(72.2)	3(0.8)	1(2.2)
Construction	886(16.8)	249(64.0)	20(0.1)	597(16.9)
Manufacturing	3977(28.2)	2908(63.1)	555(0.7)	106(2.1)
Electric, Gas, Heating, and Water	225(71.9)	159(100)	5(0.2)	4(6.1)
Transport and Telecommunications	1645(44.7)	1009(100)	245(0.9)	127(11.4)
Wholesaling, Retailing and Restaurants	1089(6.4)	854(91.2)	174(0.3)	60(0.5)
Finance and Insurance	1171(56.2)	1116(100)	43(0.3)	3(0.4)
Real Estate	17(1.8)	12(22.2)	5(0.2)	1(0.1)
Services	1888(12.9)	529(18.7)	329(0.4)	87(1.2)
Public Administration	1322(74.4)	---	---	---
All Industries	12323(20.5)	7253(64.5)	1380(0.4)	1036(3.3)

Source: Nihon no tÇkei (1992/93)table 69, p. 49 and table 74 p. 56.

Rationale and Implications of Enterprise Unionism in Japan

The goals of a labor union include both the economic enrichment of its members, and expansion of its ranks. These two goals often conflict with one another, for union wages can generally be raised by constricting employment, that is, monopolizing the supply of labor and effecting a contrived scarcity of it. But unions can also perform actions that increase the demand for their members' services, which would, in principle, allow both higher wages and expanded employment. Actions that a union can perform to enlarge the demand for its members' services include providing services that facilitate negotiation and enforcement of efficient labor contracts. The services might have to do with the screening of job applicants (Here one thinks of the internationally ubiquitous union hiring hall for seamen). Also, collective negotiation of contracts may afford cost savings when compared to case-by-case negotiations. Grievance procedures and other such contract monitoring activities are also logically subject to economies of scale. Unions that perform these services thus enlarge the effective demand for labor. Additionally, David Weinstein has pointed out that an enterprise union might actually induce an enlarged demand for its members' services merely by insisting upon expanded employment, if, as in the Cournot model, it causes the firm's oligopolistic

rivals to shrink their outputs.⁵ Of course the enterprise unions of the rival firms will adopt the same ploy, greatly reducing the overall effectiveness of each's insistence upon expanded employment as a way of increasing their employers' willingness to pay for labor services--the situation resembles an arms race that none win but that none can avoid.

The preceding discussion opens a range of possible implications of Japan's enterprise unions. As labor monopolies, the unions would have constricted employment and raised the wages in the unionized sector. As suppliers of valuable services they would have expanded employment in the unionized sector, and, by bargaining effectively for a share of the resulting benefits, raised the wage rate. Finally, as adjuncts to the oligopolistic rivalry of the large firms, enterprise unions would have expanded the output and employment in unionized industries, but without necessarily raising the wage rate, or without raising it by much. Direct evidence pertaining to Japanese unions' effects on wages and employment is scant. Because nearly all of the large employers in Japan and few of the small employers confront enterprise unions, it is most difficult to distinguish a union wage effect from a firm-size effect. One study by Giorgio Brunello⁶ examining mostly small and medium-sized Japanese manufacturing firms, however, did find that unionized firms tended to achieve much smaller profit to sales ratios, slightly smaller rates of return on equity, and much smaller value-added per worker than did similar but non-unionized firms in the same industries. Another study by a team of Japanese labor economists⁷ found that unionization in small and medium sized manufacturing firms tended to be associated with enlarged bonuses and severance pay, higher wages for female employees, and increased inclination of employees to refrain from working on paid holidays. While hardly conclusive, these two studies, together, support the finding that Japan's enterprise unions enlarge wages and reduce their employing firms' profits. The unions-as-labor-monopolies story receives qualified support.

An enterprise union is not a valuable monopoly of general labor but is, potentially, a valuable monopoly of the services of workers with skills specific to the one company. Quite arguably, lifetime employment and seniority-based wages evolved in Japan to promote the acquisition of company-specific skills and to discourage shirking by workers who, having acquired such skills, were unlikely to be dismissed. The fact that the employees of the large manufacturing firms in Japan are the locus

⁵David Weinstein, "United We Stand: Firms and Enterprise Unions in Japan", Journal of the Japanese and International Economies, vol. 8, 1994, pp. 53-71. The Cournot model on which Weinstein's model turns, the standard model for the behavior of manufacturing oligopolies, presumes that firms in the same industry choose outputs to maximize their own respective profits, given the imputed output decisions of rivals. If a union labor contract "forces" enlarged output by one firm, it reduces the profit-maximizing outputs of the others, who thus concede a larger share of the industry output and profit to the one.

⁶Giorgio Brunello, "The Effect of Unions on Firm Performance in Japanese Manufacturing", Industrial and Labor Relations Review, vol. 45, no. 3, April 1992, pp. 471-487.

⁷Nakamura Kasuke, Sato Hiroshige, and Kamiya Takatoshi, *rōdō kumiai wa, hontō ni yaku ni tatteiru no ka: (Do labor unions really have a useful role?) Sōgō Rōdō Kenkyūjo*, 1988. The authors surveyed small and medium manufacturing firms in the Tokyo area in 1982.

of these practices and also the most unionized, reinforces the idea that investment in company-specific skills gave rise to union labor monopolies in Japan at the enterprise level. Industry-wide labor monopolies would of course be more valuable than enterprise labor monopolies, but not by enough in Japan, where enterprise labor monopolies are themselves relatively valuable, to overcome employer resistance or political opposition to the needed adjustments in labor laws. None of this precludes Japan's enterprise unions having actually provided valuable contract enforcement services. And here also, the employment practices of large firms have a significant bearing. Labor contracts assuring that workers have efficient incentives to acquire company-specific skills and avoid shirking, necessarily depend upon the workers' belief that the employer will fulfill promises to compensate them late in their careers for services rendered earlier. An enterprise union that can hold an employer to account strengthens workers' credence in these implicitly long-term labor contracts, to the enrichment of both employer and workers.

Whether a union effects a contrived scarcity of labor services, or enlarges the employer's effective demand for those services, its members will obtain little of the resulting economic rent unless it can bargain effectively. Union success in bargaining depends very much upon the credible threat to impose losses on a recalcitrant employer by striking. We next examine just how effective Japanese unions have been in this regard.

Bargaining and Strikes

Paradoxical as it might seem, the effectiveness of a union at extracting higher wages for its members cannot be judged by the frequency or duration of strikes. The purpose of a strike is to reveal the employer's true willingness to pay a premium for the labor services of union members. A strike will occur whenever the union believes that an employer might be understating the size of that premium. And the strike will continue until the union is satisfied that the employer has admitted the truth. If the employer's willingness to pay is already known by the union, a strike is unnecessary; union and employer will reach an immediate accommodation with one another without a strike.

All of this can be made very precise. Suppose that a union and employer are bargaining over the wage the employer is to pay. Suppose also that the value to the employer of the union's labor exceeds the non-union wage by some set amount v , and that the object of their bargaining is simply what portion of that amount the employer pays in the form of a premium p in excess of the market wage for nonunion labor. The employer and union proceed by an alternating sequence of offers and counteroffers. Each round of bargaining is costly to both. If the costs are known to both, then the first party makes an offer that the other is just sure to accept, that is, that would leave it just as well off whether it accepts the offer or proposes the symmetric counteroffer. For instance, if prolonging the bargaining by one round imposes a cost of Δ which is borne by the parties in proportion to their respective shares of the gain from trade (each applies the discount factor $1-\Delta$ in determining the present values of shares to be received one-period ahead), then the first party proposes terms that imply its own share of the gain is

$$s=1/(2-\Delta),$$

and the other party accepts. The reason? If the other party declines the offer, it can propose a symmetric offer in the next round, which would confer on it a share, net of costs of having prolonged the bargaining for a round, equal to

$$s-\Delta s=(1-\Delta)/(2-\Delta),$$

that is, exactly the share it receives if it accepts the initial offer:

$$1-s=1-1/(2-\Delta).$$

In the limit as Δ grows small (for instance, as each round of bargaining takes less time), s approaches $1/2$: They divide the gain equally.⁸ The union and employer agree immediately on a union wage premium: $p=v/2$. There is no strike. Yet even in this case, the threat of a strike is crucial to the outcome. If, instead of an open-ended bargaining process as just described, the bargainers are limited to just one round of offers, after which failure to agree means that neither party realizes any gain from trade, then the party that makes the last offer secures all of the gain. A regime that allows employer lockouts but disallows strikes, in effect, limits bargaining to a single round and confers the right of last offer on the employer. The employer makes a single take-it-or-leave-it offer and captures the entire gain from employing the incumbent workers rather than others. This roughly describes the industrial relations regime of Japan prior to World War I, in which strikes resulted in the incarceration of union members, and the threat of a strike therefore generally lacked credibility. But what about Japan's current industrial relations regime in which strikes are allowed? Strikes, although somewhat rare, do nevertheless occur. An extension of the previous example reveals why.⁹

Suppose that although the employer, of course, knows its own maximum willingness to pay a premium for union labor (rather than do without altogether), the union does not know it; the true value of v is private knowledge of the employer. To keep matters simple, suppose that, initially, the union knows only that v lies in an interval (\underline{v}, v) . In this case, by prolonging bargaining (allowing a strike to continue), the employer "signals" that the true value of v is low. To put it another way, as time elapses without agreement, the union infers that the true value of v must be lower than it had previously hoped and continually revises its wage offer downward. Upon some reflection, the following will be seen to represent optimal decisions by both union and employer, each given the respective choice of the other. The union's initial wage offer is a wage premium $p=v/2$. As time elapses without agreement, the union continually revises its wage offer downward so that

$$p=(1/2)ve^{-rt},$$

where t is the elapsed time and r is the continuous discount rate (for example, ve^{-rt} happens to be the discounted present value of amount v to be realized t periods hence). If the true value of v lies at the

⁸By similar reasoning detailed in the appendix, if the costs of delaying agreement differ between the two parties (but are still proportionate to their respective ultimate shares of the gain), then the initial offer, which the second party accepts, equals

$$s_1=\Delta_2/(\Delta_1+\Delta_2-\Delta_1\Delta_2),$$

where $1-\Delta_i$ represents the discount factor of party i . In other words, for either, the share obtained becomes larger, the greater is the opposite party's cost of prolonging bargaining. This reasoning was first developed by: Ariel Rubenstein, "Perfect Equilibrium in a Bargaining Model", *Econometrica*, vol. 50, no. 1, 1982, pp. 97-109.

⁹Models like the one sketched here are discussed at length in the following excellent survey: John Kennan and Robert Wilson, "Bargaining and Private Information", *Journal of Economic Literature*, vol. 31, March 1993, pp. 45-104. Also refer to: Peter C. Cramton, "Delay in Bargaining with Two-Sided Uncertainty," *Review of Economic Studies*, vol. 59, no. 1, January 1992, pp. 205-225.

high end of the interval, the employer can do no better than accept the initial offer, and does so. But if the true value of v lies below v , the employer holds out until the union wage offer has declined to the point that it divides the true gain from trade equally between them. Then it accepts the offer and the strike ends.

The union and employer reason as follows. If the union wage offer is continually revised downward (“decays”) at the same rate as the employer’s time rate of discount, then the employer will, at any given instant, reject the current offer if it leaves the employer with less than half of the true gain from trade. The reason? With this particular decay rate, if the wage offer of a given instant leaves the employer with less than half of the gain, then the onerousness of postponing realization is more than offset by the ensuing downward revision of the union’s wage offer. And precisely because the employer calculates in this manner, the union can do no better for itself than by, in fact, allowing its wage offer to decay at exactly the same rate as the time rate of discount (its own and the employer’s, here presumed to be identical). A faster decay rate might hasten agreement but at too high a cost to the union, and a slower decay rate might ultimately leave the union with a larger share but would take too long to be worthwhile. Furthermore, the union’s initial wage offer should be one that the employer accepts only if the true gain is at the top of the interval, for any lower initial offer would needlessly sacrifice the potential advantages to the union of ultimate discovery of the truth, and any higher offer would be sure to be rejected.

The upshot of all this is quite simple. A strike will occur only if the employer’s maximum willingness to pay a premium for union labor is known only to it. Also strikes will last longer, the greater the discrepancy between the employer’s maximum willingness to pay for union labor, and the union’s initial perception of how high the employer’s maximum willingness to pay might be.

Small Percentage of Total Working Time Lost Due to Strikes in Japan

Strikes are rare events in all of the developed nations, but particularly so in Japan. Table 4 describes the incidence, duration and costliness of strikes in Japan and a few other countries. Only seventeen in ten-thousand employees were even involved in strikes in Japan in 1992, slightly more than in the U.S. but significantly less than in the other nations. Furthermore, the mean duration of strikes was much less in Japan than in the U.S. in that year, two days in Japan compared to three weeks in the U.S.. The percent of total working time lost due to strikes in Japan in 1992 was a mere 0.002 percent, much lower than in any other nation listed in the table, including the U.S..

Table 4. Strikes in Japan and selected other Nations, 1992

	Percent of total Working time lost	Incidence (percent of total employed)	mean duration (days)
JAPAN	0.002	0.17	2.1
United Kingdom	0.01	1.5	1.7
France	0.01	0.02	13.9
U.S. (1993)	0.014	0.15	21.4
Germany	0.02	2.0	2.6
Canada (1993)	0.02	0.73	7.8
Italy	0.05	14.7	0.9

Note. Canada excludes strikes involving fewer than 500 workers; US excludes strikes involving fewer than 1000 workers or lasting less than half of a working day; Japan excludes strikes lasting less than half a working day.

source: Randall K. Filer, Daniel S. Hamermesh, and Albert Rees, The Economics of Work and Pay, Harper Collins, sixth edition, 1996, Table 12.2, p.471. (Their primary source: International Labour Organization, Yearbook of Labour Statistics (1994), tables 3 and 31)

In Japan, union labor contracts are nearly always for the upcoming year, and are negotiated in the Spring each year, an event known as the Spring labor offensive or *shuntō* (short for: *shun-ki chin-ageru kyōdō tōsō*, lit. the Springtime cooperative struggle to hike wages). April is the beginning of the annual school year in Japan, and also the time of accession of new graduates into jobs, and so it is the logical month for concluding labor contracts.¹⁰ Beginning in 1955, a large number of Japanese labor unions have attempted annually to cooperate with one another to coordinate the timing and substance of their contract negotiations. Only since then have the annual spring labor negotiations been referred to as *shuntō*. These annual displays of cooperation across unions have actually achieved very little. The locus of contract negotiation and strike activity in Japan is, quite

¹⁰The fact that wage negotiations in Japan are synchronous imparts a degree of flexibility to wage contracts that would not be present if the contracting periods were staggered, as is typical of the U.S.. With staggered contracts, if workers in one enterprise or industry previously over-predicted the price level, so that their real wage rate is higher than they had intended, this will increase the demand for labor in rival enterprises or industries, and prompt their employees to seek higher wages, too, when their current contracts expire. Synchronicity assures that if workers in one enterprise or industry over-predict the price level, so that their real wage rate is higher than they had intended, then at least it will not have influenced the real wage in rival firms or industries producing substitute products. The employment effect of such errors will accordingly be attenuated by the synchronicity of labor agreements. This line of argument is developed in some detail by: Stanley Fischer, "Long-term contracts, Rational Expectations and the Optimal Money Supply Rule", Journal of Political Economy, vol. 85, 1977, pp. 191-205; and John B. Taylor, "Aggregate Dynamics and Staggered Contracts", Journal of Political Economy, vol. 88, 1980, pp. 1-23.

emphatically, the enterprise. Synchronicity of negotiations across enterprises did not require cooperation, for it is more or less assured by the predominance of one-year contracts. About half of the strikes in Japan occur in the months leading up to the Spring offensive, February to May. Most other strikes tend to occur around the times bonuses are paid, mid-summer and December, and involve disputes about the levels of bonus payments.

Careful readers of the previous sections will know that Japan's infrequency and short duration of strikes is a poor indication of the effectiveness of its labor unions at obtaining higher wages for their members. Really, the smallness of losses due to strikes in Japan means only that there is little discrepancy between the unions' and employers' information regarding the employers' maximum willingness to pay a premium for union members' services. It does not necessarily mean that the premium itself is small. Enterprise union members in Japan mostly include the regular employees of large firms, trained in company-specific skills and expectant of long ultimate tenures of service. Compared to members of a typical industry-wide union in the U.S. or elsewhere, the members of a Japanese enterprise union are relatively homogeneous and have had a longer time in which to observe the behavior of their employer. For both these reasons, it is quite natural to suppose that union members in Japan should be relatively well-informed regarding their employers' willingness to pay a premium for their services.

Conclusion

The various labor laws enacted in Japan in the Occupation era, and still in effect today without substantial amendment, did legitimize unions, both as bargaining units on behalf of the employees of large companies and as political organizations, but prohibited strikes by public employees, and did not lead to the establishment of valuable labor monopolies. The effective bargaining units in wage negotiations in Japan are mostly enterprise unions, whose respective members are employees of a given company. This does not preclude their having succeeded in raising members' wages. Industry unions and craft unions are probably more effective than enterprise unions at monopolizing the supply of labor, but unions can also create economic rents by providing valuable services related to labor contracting. And enterprise unions probably economize on the costs of negotiating and enforcing labor contracts as well or better than industry or craft unions, particularly in Japan's large companies, where long tenures of employment have become the norm since the 1950's. The small amount of working time lost due to strikes in Japan reflects the union workers' very great accumulation of information regarding their employers' willingness to pay for their labor, under the lifetime employment system. It does not indicate that the threat to strike is a weak one in Japan.

Appendix. The Rubenstein Bargaining Game

In this appendix we detail the logic of bargaining as developed by: Ariel Rubenstein, “Perfect Equilibrium in a Bargaining Model”, *Econometrica*, vol. 50, no. 1, 1982, pp. 97-109. This logic provides the indispensable point of reference for understanding strikes by labor unions.

Suppose that two persons must decide how to divide a dollar. The first proposes that he himself receive some specific share, s_1 say. The second person, if he declines the original offer, proposes a counteroffer in which he himself should receive some specific share, s_2 say. And so on, back and forth. Each time an offer is declined, the two bargainers, $i=1,2$, each incur costs of delay Δ_i , proportionate to the respective share each ultimately receives. That is, each applies the discount factor $(1-\Delta_i)$.

Now, the unique subgame perfect solution to this game is the pair (s_1, s_2) representing the share each proposes to allocate to himself whenever it is his turn to make an offer, for the situation before each player is essentially unchanging whenever it is his turn to make an offer. The bargaining proceeds as follows:

	Player 1's Allocation Net of Costs	Player 2's Allocation Net of Costs
One <u>Proposing:</u>	<u>of Delay:</u>	<u>of Delay:</u>
Player 1	s_1	$1-s_1$
Player 2	$(1-s_2)(1-\Delta_1)$	$s_2(1-\Delta_2)$
Player 1	$s_1(1-\Delta_1)^2$	$(1-s_1)(1-\Delta_2)^2$

....and so on, until an offer is accepted.

Consider the characteristics of s_1 and s_2 . Player 2's initial counteroffer must be the least generous that it could expect player 1 to accept:

$$(1-s_2)(1-\Delta_1) = s_1(1-\Delta_1)^2.$$

In anticipation of such a counteroffer from player 2, player 1's initial offer is the least generous it can expect player 2 to accept:

$$1-s_1 = s_2(1-\Delta_2).$$

Solving these two equations, we find that

$$s_1 = \Delta_2 / (\Delta_1 + \Delta_2 - \Delta_1 \Delta_2).$$

Player 1 proposes this allocation and the offer is immediately accepted by player 2. The implication is that the share each obtains is larger, the greater is the opposite party's cost of prolonging bargaining. Furthermore, the first to propose an offer (in the example here, player 1) holds an advantage. In the limit, as the costs of prolonging bargaining approach zero, while holding their ratio to one another at an unchanging level (for instance, as the successive rounds transpire more rapidly),

the “first-mover” advantage dissipates, but the respective costs of prolonging bargaining still influence the outcome:

$$\lim_{\Delta_1 = \Delta_2 \rightarrow 0} s_1 = 1/(1+(\Delta_1/\Delta_2)), \text{ and } 1-s_1 = 1/(1+(\Delta_2/\Delta_1))$$

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